DXP38 Manual Alterations

- The DXP development team has recently introduced three new features for the HAL DXP38 HF modem and DXPWin Windows terminal software:

1. AMTOR CFEC Mode
2. RX gain control
3. FSK RTTY WIDE SHIFT RX mode.

- **New RX Gain Control**

The DXP38 now has the ability to control input audio gain. The settings are: 0 (default), +6, and +12 DB. To adjust the RX gain, locate the **RX Gain** control on the General Tab of the Configuration menu. Click **SAVE** to save the configuration settings. DXPWin uses the same gain setting for each mode. NOTE: The factory default setting is 0 DB.

See Figure 1 on the back of this sheet.

- **New FSK RTTY WIDE SHIFT RX Mode**

The DXP38 now can easily switch the RX (receive) shift to better receive those stations sending 200Hz shift FSK RTTY. The hot-key **[ALT]-W** has been added to the DXPWin terminal program allowing the ability to quickly change between WIDE and NORMAL Shift modes. Note: (1)The factory default setting is for NORMAL SHIFT (2) WIDE SHIFT Mode is only active in FSK RTTY mode.

Note: Wide Shift indicates the DXP38 is using 200Hz RX shift. The DXP38 will still transmit using standard 170Hz shift.

See Figure 2 on the back of this sheet.

- **New AMTOR CFEC Mode**

AMTOR CFEC mode is also called "Conversational Broadcast Mode". CFEC is very similar to FEC "Mode B", but it does not return to STBY after a transmission. CFEC instead returns to a FEC receive-only state that allows for RTTY type conversation. CFEC uses the same 7-bit character code as ARQ mode but sends each character twice, seperated by the time it takes to send four other characters (called a "4-character interleave"). If the first received character is in error, the CFEC mode receiving equipment examines the second character.

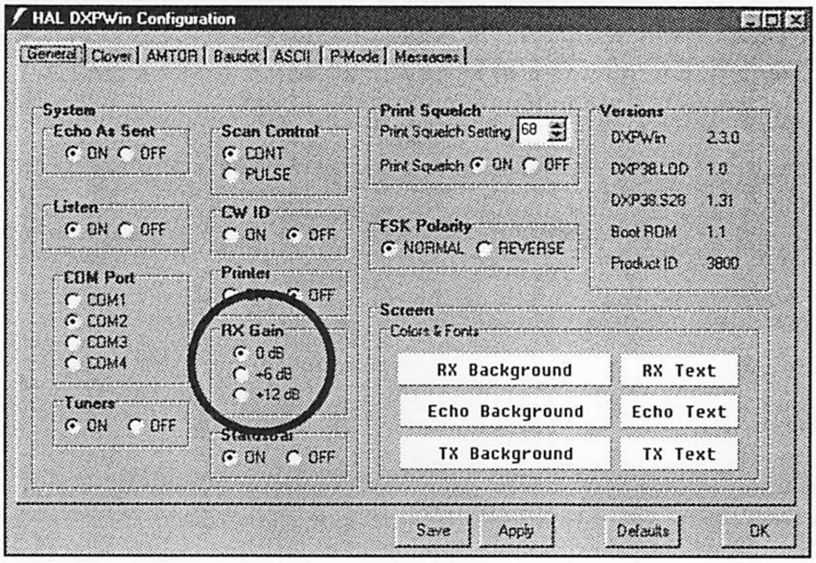
Starting CFEC Mode: CFEC mode does not require a SEL-CAL code and may be used much like RTTY. To start CFEC mode, click FEC on the toolbar. The DXP38 will immediately begin transmitting if any text has been typed ahead in the transmit buffer. Otherwise, the DXP38 will remain in receive only mode until text is entered in the transmit buffer. After the text is sent from the typed ahead transmit buffer, the DXP38 will return to receive only (FEC-RX).

Note: Similar to RTTY, the transmit mode (Charater/Word/Line) and toggling transmit enable/disable affects how and when text is transmitted from the buffer.

Ending CFEC Mode: To end AMTOR CFEC and return to AMTOR-STBY, insert ZZZZ at the end of the trasnsmitted text. The [F7] key may be used to insert the ZZZZ sequence.

CFEC may also use the "panic-kill" hot-key — **[Ctrl]-F7**. In this case, pressing **[Ctrl]-F7** causes an immediate end to FEC transmission, flushes the transmit buffer, and returns the DXP38 to AMTOR-STBY mode. Use **[Ctrl]-F7** with restraint!

- Please omit 'FSK ATC' in section 4.9.5, as it was originally included in error.



System

Echo As Sent: ● ON ○ OFF

Listen: ● ON ○ OFF

COM Port: ○ COM1 ● COM2 ○ COM3 ○ COM4

Tuners: ● ON ○ OFF

Scan Control: ● CONT ○ PULSE

CW ID: ○ ON ● OFF

Printer: ○ ON ● OFF

RX Gain: ● 0 dB ○ +6 dB ○ +12 dB

Statusbar: ● ON ○ OFF

Print Squelch

Print Squelch Setting 68

Print Squelch ● ON ○ OFF

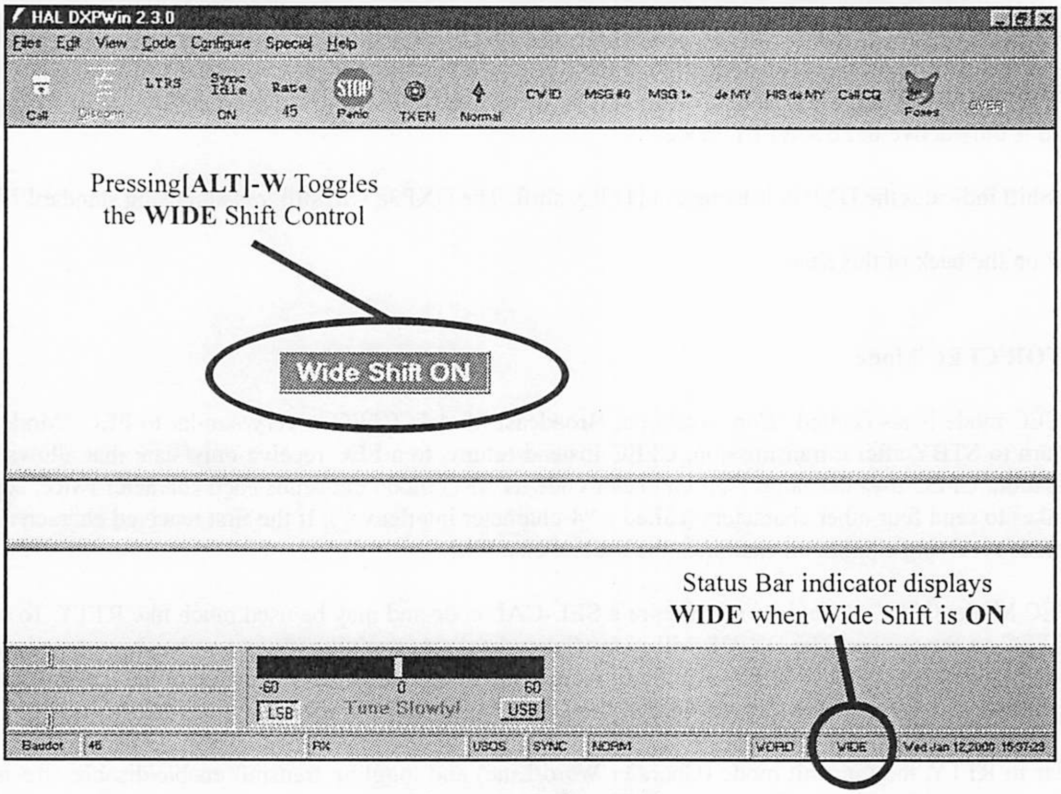
FSK Polarity: ● NORMAL ○ REVERSE

Screen

Versions

DXPWin	2.3.0
DXP38.LOD	1.0
DXP38.S28	1.31
Boot ROM	1.1
Product ID	3800

Figure 1: RX Gain Control



Pressing **[ALT]-W** Toggles the **WIDE** Shift Control

Status Bar indicator displays **WIDE** when Wide Shift is **ON**

Baudot | 45 | RX | USOS | SYNC | NORM | WORD | WIDE | Wed Jan 12,2000 15:07:23

Figure 2: Wide Shift

HAL COMMUNICATIONS CORP.
1201 W. Kenyon Road, P.O. Box 365
Urbana, Illinois 61801-0365
Phone: (217) 367-7373 • FAX: (217) 367-1701
www.halcomm.com • halcomm@halcomm.com